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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,949	02/27/2002	Thomas A. Millott	67,008-040/S-5449/5452	8362

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EXAMINER

SHAH, KAMINI S

ART UNIT PAPER NUMBER

2863

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

10/083,949

Applicant(s)

MILLOTT ET AL

Examiner

Kamini S Shah

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-12,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 3,4,13-15,18 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-2, and 5- 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Hodgson et al in view of Uchiumi Jun (Abstract of Japan patent AP # 2001020789) (cited by applicant).

Regarding to claimed invention, Hodgson et al teaches a method for **reducing sensed physical variables** (i.e. *active noise and vibration* as in abstract) including steps: (a) generating a plurality of **control commands** (i.e., *broadband disturbance signal detector for providing signal representative of frequency spectrum including reference signals 11*, see at least abstract and figure 2); (b) generating an **estimate of relationship** between the **sensed physical variables and the control commands**

Art Unit: 2863

(i.e., in figure 11, col. 6, lines 25-51, relationship between *actuator means and sensor means*). However, Hodgson et al does not disclose the step of adding dither signal to each of plurality of control commands. Jun in the abstract, discloses dither signal superposing means 26 to superpose dither signal current on the exciting current of the actuator. It would have been obvious to ordinary skill in the art at the time of invention was made to add dither signal to the actuator current or other control command because it well known that it provide better performance to an actuator while using dead zone as disclosed in Jun such as superposing dither signal to current of actuator would provide stable engine speed without affected by a dead zone.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 9-12, 16 and 17 rejected under 35 U.S.C. 102(b) as being anticipated by Hodgson (5,526,292) (cited by applicant).

Regarding to claimed invention, Hodgson et al teaches a method for **reducing sensed physical variables** (i.e. *active noise and vibration* as in abstract) including steps: (a) generating a plurality of **control commands** (i.e., *broadband disturbance signal detector for providing signal representative of frequency spectrum including reference signals 11*, see at least abstract and figure 2); (b) generating an **estimate of relationship between the sensed physical variables and the control c mmands**

Art Unit: 2863

(i.e., in figure 11, col. 6, lines 25-51, relationship between *actuator means and sensor means*); (c) varying size of the update based upon a magnitude of change over time (i.e., a vehicle passenger compartment provides signal representative of the frequency spectrum and corresponding relative magnitude of a broadband signal estimating from a vibrational energy source to a controller, also see figure 10).

6. Claims 3,4,13,14,15,18,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamini S Shah whose telephone number is 703-305-9590. The examiner can normally be reached on IFP.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 703-308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Application/Control Number: 10/083,949

Page 5

Art Unit: 2863

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Kamini S Shah  
Primary Examiner  
Art Unit 2863

kss  
June 16, 2003